THE

WESTERN

FARMER AND GARDENER,

AND

HORTICULTURAL MAGAZINE.

Edited by { EDW. JAS. HOOPER, a Practical Farmer,
CHAS. W. ELLIOTT, a Practical Horticulturist

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CINCINNATI:

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1844.

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R. P. BROOKS, *Publisher.*

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CH. W. ELLIOTT.

Geneating Apple.

THE WESTERN FARMER AND GARDENER,
AND HORTICULTURAL MAGAZINE.

Vol. IV.] Cincinnati, June, 1844. [No. XI.

The Geneating Apple.

Very little is known of this apple, except that it is one of the best, through the latter part of winter, and in the spring; even its orthography is uncertain, some preferring to spell it Gennetting. The tree is vigorous and handsome, and is peculiar in showing its leaves and flowers ten days or a fortnight later than the common varieties.

The FRUIT is of the medium size—perhaps below it; spherical, contracted somewhat toward the *eye*, which is in a rather shallow basin; the *stalk* short, and set deeply; *skin* of a dull yellow, streaked with a light red, not often brilliant, and sometimes quite brown with russet patches; the *flesh* is yellowish white, solid and tender, and remains so without shrivelling, with a high and fine flavor. C. W. E.

The Exhibition,

At the room of the Cincinnati Horticultural Society was held on the 23d May, and collected together a brilliant and gratified assemblage. Over fifty contributors made the room gay with the choicest roses, &c., and without doubt were more gratified in giving than they would have been in receiving. One of the best effects of flower cultivation is that it opens the hard hearts of men, and makes them generous; few persons live among us who do not feel gratified in extending the pleasure which comes from them, to all among their friends and acquaintances. There are some in the world, ("a judicious few,") who hold that this kind of taste is inconsistent with a strong, vigorous intellect, such as they intend to cultivate; but they "are yet in darkness and have not the light." Among our cultivators, and these some of the most prominent, there are those who for their firmness, decision and energy, are not surpassed by any in the city.

In fruits, there was but little to notice.—Of apples, the Geneating, Carnahan's Favorite, and Yellow June, (not yet ripe.) Of cherries, the Early May, China Bigarreau, and Black Heart. A fine Pine Apple, (fruit and plant.) Gooseberries. Strawberries, Hovey's Seedling (fine,) La Grange (or Hautbois,) Hudson, &c. Asparagus, very large and fine. Rhubarb, Queen Victoria, enormous.

Of flowers, a great variety of roses did more to make the room gay and beautiful than any other; and among them might be seen almost all the finer kinds of hardy roses, and a very choice collection of more tender ones—and this, it must be remembered, is nearly two weeks after they were in perfection. Among the more beautiful plants, might be seen the Achimenes longiflora, Fuschia superba, fulgens, and rosea alba; Gloxinia, white and blue, Agapanthus variegata, Nepenthes distillatoria, or Chinese Pitcher Plant, Sedum virginica, the white Cyprepedium, or Mocasin Flower, a new Lupin, Salvia patens, Yucca gloriosa, Pansies fourteen varieties, the largest, larger than a silver dollar. A great variety of others which will appear in our detailed account. Every one was gratified, and the young ladies walked home by moonlight, with their hands full of flowers, and, for aught the writer knows, with their hearts full. C. W. E.

The Executive Com. of the Hamilton Co. Ag. Society, held a meeting on the 18th ult. and concerted measures for carrying its objects into full effect.

Spirit of the Agricultural Journals.

(Continued from page 223.)

The fleece of the Alpaca, a species of the Lama of Peru, which inhabits the Cordilleras of the Andes, in South America, has already become an article of commerce. They are shorn about every third year, in April, when the wool is about eight inches long. They are about to introduce this animal into the elevated parts of England and Scotland, on account of the superiority of its wool, which is calculated to supply the manufacturer with another raw material of home growth, applicable, by its fine quality and glossiness, to the purposes of silk. Why not introduce this hardy, good fleshed animal into the United States?

Sheep husbandry must soon become a profitable and important business in the United States. Mr. Reynolds, a wool grower in Delaware, has a flock of one thousand Leicester sheep, from which he clipped eight thousand pounds of good wool last season.

A pint of human urine contains ammonia enough to supply a bushel of wheat with all the nitrogen it needs. In Flanders, farmers pay forty shillings, or nearly ten dollars, a year for the urine of a single cow for that length of time, to be used in the culture of wheat and other crops. Common sense would seem to teach every agriculturist, that he should restore to his fields every particle of the liquid and solid excretions of all animals that feed upon his crops. This may be done by cisterns or sunk casks near the stables, or by fixing the ammonia from urine voided on litter, by sprinkling gypsum or common salt on the heaps under the animals, or when removed to the cellar or yard.

A Mr. Lowcock has submitted to the inspection of Queen Victoria and Prince Albert, the model of a plough on a new principle. This plough is an ingenious contrivance, and has a coulter both ways.

We must not take (Mr. Downing says) the English writers as infallible guides, for even so small a matter as the flavor of a well known pear—as the Bartlett Pear, (or Williams' Bon Chrétien,) for example; which, in England, is frequently watery, and is ranked in the last edition of the London Catalogue, (see this list published at the end of each No. of the Farmer and Gardener,) as second rate, has been found one of the finest fruits here. The Belle de Choisy Cherry, Mr. D. has also proved a valuable sort, the fruit being exceedingly luscious. Mr. D. has a new seedling plum, called Downing's Emerald Drop, and another called Roe's Autumn Gage—both valuable varieties, which should be found in every garden.

Mr. Downing has another work in the press, on the Fruits and Fruit Trees of America, which will soon appear. This, the best judges think, will be one of the most valuable publications ever issued on the subject.

The Victoria Rhubarb is a superior kind, but Mr. Downing has one beyond it, he states; it comes forward sooner and continues longer than any other variety, and is remarkable for its tender, succulent quality.

Corn, according to Mr. Teschemachers' valuable discovery, grown by the application of guano, contains fifty per cent. more of phosphate in it than that raised on the same land without guano; and its product may be doubled on a poor soil by the use of a few dollars' worth of this powerful fertilizer per acre. Guano is at present too dear for general adoption, until Government abolishes the duty, and it can be brought directly to our own ports. This manure is best adapted for poor soils; for rich or highly manured land it would be of little benefit. One to two hundred pounds per acre is enough, according to the opinion of the able and practical editor of the American Agriculturist, A. B. Allen. It should be mixed under cover from rain in thin layers of earth; and after a short time toss over the compost pretty minutely, then apply it to the crops.

Although feeding silk worms at the West has, for the past year or two, been chiefly in *sheds* and tents, yet, at Economy, Pa., they have fed from ten to twelve years, and have used enclosed buildings, and are *always successful.* Last year, they fed twenty-three crops and made between five and six hundred pounds of reeled silk, of first quality. The secret of their success is, that they *clean their worms every day.* There seems to be much more danger from heat than cold, especially *hot, sultry, confined* weather, unless the air can be entirely changed in a very short time by *flash-fires in chimneys*, with brush, straw, &c.

A new impulse, among the agricultural improvements of the age, is undoubtedly being given to horticulture; yet there are a great many yet to learn that there is as vast a difference between a good pear or a good cherry and a poor one, as there is between a common, ungrafted, sour apple, and a Spitzenberg or a Newtown Pippin.

Apples for exportation should be carefully picked, and placed by hand in baskets, then carried by men and put in an open barn, for the purpose of sweating fifteen or twenty days. They should then be put in barrels having a few holes bored in each head with an inch and a half auger, with no straw, sand, &c., among them. They should always be shipped on deck, and very carefully handled, without rolling, jolting, or jarring.

Pulverized charcoal, as a manure, will be found invaluable. It is pure and incorruptible, absorbs from the atmosphere ninety volumes of ammoniacal gas, fifty-five of sulphuretted hydrogen, and thirty-five of carbonic acid gas. Charcoal from pine wood is the best for agri-

cultural purposes, on account of its fine texture, which enables it to absorb moisture, together with other gasses, and may be easily incorporated with the soil, where it protects plants not only from decay, but worms.

The tree Dahlia is a novelty in horticulture. It is originally from Mexico, and was introduced into England three or four years ago. It has grown eight or nine feet high, and then flowered. It has one stem, branching a little at the top. The leaves are three feet long, the flowers of a clear lilac color, in the form of an Anemony.

By the introduction of a superior system of agriculture, England calculates *within ten years* on becoming an *exporter* of wheat.

As soon as the nests of caterpillars can be seen, procure some pure spirits of ammonia, tie a small piece of sponge to a pole that is long enough to reach the highest nest; fill the sponge with ammonia, and once filling will be sufficient to rub off and destroy from thirty to forty nests.

To render old and barren orchards thrifty and productive, early in the spring plough the entire orchard, and enrich with a compost of manure, lime, and chip manure. Scrape off all the old bark with a scraper or hoe, ground sharp. Apply half a bushel of slaked lime, and the same of fine charcoal; then, around each tree, apply soft soap or strong soapsuds, on a rag or white wash brush, on the trunks and limbs as high as a man can reach. While the trees are in full bloom, throw over them a good supply of fine slaked lime.

The American farmer suffers more and improves less from the want of capital and the dearness of labor than from any thing else. Many owning large farms can hardly buy a new saddle. How valuable here, then, is labor-saving machinery; how valuable, too, is a manure, in those parts of the country away from the sea, that obviates the great labor of collecting materials for manure, and hauling it after it is made. This manure is gypsum or plaster of Paris. Only a bushel of it per acre is requisite, and its application is very quick. Sow clover first, then gypsum. Irrigation, where practicable, is another speedy method of reclaiming land: both that and plaster of Paris, are much neglected in America.

The principles in cultivating a good grape vine, the Isabella, for instance, are—1st. To have it well planted. 2d. To take care that neither weeds nor insects injure it. 3d. To allow no more wood to grow than just enough to support and perfect the fruit. Of what use is it to plant a vine well, (with a wheelbarrow full of wood yard manure and old lime mortar, for example,) if it be allowed to run wild with its branches, and to be smothered with weeds. When you wish to prevent wood from crossing where you do not want it, rub the buds off. When a branch has grown as long as you want it, nip off its end with your finger nail.

Most things are allowed in general to run almost wild here; even the currant bush, which should be pruned like an apple tree, has its own way, and is neither trained nor pruned right. Gooseberries require very close pruning and plenty of manure; often they have neither.

Cows, when trained young, can be made to work nearly as well as oxen, and it is decidedly economy to use them where oxen are wanted. They may be worked moderately with advantage to their health, if well fed, the greater part of the year.

A real well bred shepherd's dog, of the best kind used in Great Britain, would be of great value to sheep raisers in this country, particularly on the prairies.

Sour milk, to wet their food, is recommended for young turkies. Let them have sour milk also in a vessel at all times. Corn meal is good for them.

Professor Harris, of insect writing celebrity, says that the apple worm and the whitish grub found in plums, are two entirely different insects. The former is a kind of caterpillar, and spins a cocoon like other caterpillars; after a chrysalis, it changes to a little brown moth, with gray spots. The plum grub is much smaller, dissimilar to the caterpillar above mentioned. It has no legs, and it opens no web or cocoon. Soon after the fruit falls, it goes into the ground, where it remains till it is changed into a brownish, hard shelled beetle or curculio, with a sort of hooked proboscis with which it stings the fruit.—(See Harris' Treatise on Insects Injurious to Fruit, pages 66 and 351.

The Poland breed of fowls seems to be a particularly valuable breed for laying, according to the testimony of those who have kept them. They are of medium size, have on their heads a large white crown of feathers, nearly a hand's width, covering and hanging down around the head. They are not inclined to sit, giving no trouble on this account. Their flesh is good. They lay about a middling sized egg. Their form is very handsome.

The produce of five acres of land is necessary to support a working horse by the year; but half an acre of carrots, at six hundred bushels to the acre, with the addition of chopped straw, while the season for their use lasts, will do as well, if not better. An acre of hay yields one ton and a half of vegetable food. An acre of carrots will yield fifteen tons. The raising of the various kinds of roots deserves the particular attention of farmers.

A quantity of ashes, put into the hog pen and sprinkled over with salt, assists much the fattening of hogs—they eat it greedily. It is also good for the health of cattle and horses.

To improve worn out lands, as soon as spring opens, plough deep and sow buckwheat

broadcast and harrow it in. When in full blossom, flatten it down with a roller, following immediately with the plough, which should whirl it under. Sow again another bushel to the acre upon the upturned sod; harrow it in, and, as before, turn it under. Then sow red clover; which, when mature, should be trampled down and eaten by stock. To all these crops, apply a bushel of plaster per acre. At the end of the second year, all lands thus treated will be restored to their original fertility.

In severe droughts, it is a very good plan, and found successful, to cover the ground about the trunks of newly set out trees with *ground tanner's bark*, (or *tan*, as it is called.) It should be in diameter about three feet, and two or three inches deep. Wet the tan occasionally—perhaps once in ten or twelve days. This prevents the rapid evaporation of moisture from the earth. Cut grass or litter strown about trees, and wetted, will also answer a good purpose. Watering trees about the roots, without something of this kind, makes the ground bake, and is oftener injurious than otherwise.

Heating hog's lard to boiling heat, and inserting each hoof of a horse in a vessel filled three or four inches with the oil, causing it to hiss upon the hoof—together with copious bleeding—is an excellent remedy for founder.

The following is found to be a cure for a bone spavin in its first stages, if properly applied. Add to two table-spoonfuls of melted lard one of cantharides, made fine or pulverised, and a lump of corrosive sublimate, as large as a pea—all melted up together, and applied once a day till used up, confining it to the callous part. This quantity is for one leg, and may be relied on as a cure. It will make it sore, and the joint will be much weakened while applying the medicine. No need of alarm—it will all be right when healed up.

Carrots and sugar beets are equally as tender as the potato, and as liable to be affected by the frost, consequently they will require equal attention, or the crop may be lost. In gathering them, care should be taken to cut off their tops about half an inch or so above the crown, as they will not keep so well when cut too close; for which reason, some prefer wringing them off with the hand.

The New Hampshire Whig says, "Two of the best farmers within our knowledge secure their fruit trees thus:—They dig at some distance from the body of a favorite tree, until they find a root, which they cut off. The part disjointed from the tree is turned up so as to appear above ground. This sends forth shoots the first season, and bears, in a few years, fruit precisely like the parent tree. Let those whose trees are decaying, or who wish to increase good varieties, try the experiment.

(To be continued.)

From the New England Farmer.

Management of Cows after Calving.

Mr. Breck:—I send you some observations on the management of cows after calving. Perhaps they are not worth much. If you think so, dispose of them accordingly. They are founded on the experience of many years.

It was the practice in my younger days, where I was brought up, and it is with many at the present time, to give the cow the *biestings*, or first drawn milk after calving. It was uniformly the case that the cow lost her appetite, so that she would eat but very little for many days: consequently, a very rapid loss of flesh ensued. It was attributed to over feeding, (the feeding should be light for three or four days after calving,) which might have been the cause in some instances, but not generally.

When I commenced farming, I did, as many others have done, and for the same reason, viz.: because "father did so," not knowing any other way. I gave my cows the first drawn milk after calving, and there was the same apparent indisposition and loss of appetite. I tended my cows myself, and knew this could not be caused by over feeding. The question then was, what could be the cause? At last, because I could think of no better reason, I concluded it must be the biestings. The practice was immediately discontinued, and for thirty years no cow of mine has had biestings given her, and in no instance has one failed of eating a proper quantity.

Within the last year, there has one case come to my knowledge, which goes to confirm my opinion on this subject. A man who had a very valuable cow, gave her, after calving, the biestings. His cow was soon after taken sick and finally died. He opened and examined her, and found that the milk had gone into what are called the *many folds*, and caused them to stick so closely together that nothing could pass; and it was his opinion that the milk given, and that only, caused the death of his cow.

It is a practice with some, to let the calf remain with the cow for several days after birth, especially if the cow's bag is swollen—as if pounding a cow's bag, when swollen hard and feverish, would be good for it. A more effectual way to make a cow's bag swell could not be taken; because, in addition to a calf's pounding with its head, the cow will give little or no more milk than the calf will take; she holds up the remainder, which causes the bag to swell. So my cows did, when I practised in that way—but perhaps they were singular.

The above is one reason why my calves for raising are taken from the cow young. The cow's bag, if out of order, gets in order much sooner by this course than it will if the calf is permitted to suck longer.

LOVETT PETERS.

Westboro' Feb. 22d, 1844.

Errors in the Treatment of Horses.

Where a horse shies, or shears, at some unaccustomed object, and which all young horses will do, never speak sharply, or, worse than that, strike him—if you would avoid his starting the next time he sees the same or any other similar object. Almost any horse may be brought to a confirmed habit of shying by such treatment. What should be done, then? Check him to a walk; give him time to see the object, and he will take little or no notice of it.

If a horse stumbles or trips, it is a common practice to strike him for it. This will not mend his habits of tripping and stumbling, but will add to them, if he has spirit. that of springing forward with dangerous quickness whenever it occurs—as he will expect the lash to follow, as a matter of course. The remedy, if it can be called one, is to keep an eye upon the road, and where, from stones or unevenness, the failing is apprehended, tighten the reins and enliven the horse, but never strike him after the accident.

As you would save the strength and wind of your horse, drive slowly up hill; and as you would save his limbs, and your own, drive slowly down hill.

Never wash off your horse with cold water when he is hot, or let him drink it freely in that state. If the water is quite warm it will not hurt him.

Do not permit the smith, when he shoes your horse, to cut out any portion of the soft part, or what is called the frog of the foot; this is apt to gradually draw in the quarters of the hoof, and cripple the animal, and is recommended only by the smooth appearance it gives to the bottom of the hoof, which is more apt to catch a round stone in the crook of the shoe than otherwise.

Do not feed with grain, especially corn, when a horse is warm, or *very much* fatigued; if you do, you may founder and ruin him.

If you want your horse to last, and your carriage also, drive moderately.

Do not keep a horse too fat nor too lean, as either disqualify him for hard labor.

The more kindness and good temper is extended to a horse, the better will he behave in return. Bad temper and bad habits come generally from bad usage. TURF BOOK.

Soap Making.

In the city, I believe it is better to exchange ashes and grease for soap; but in the country, I am certain it is good economy to make one's own soap. If you burn wood, you can make your own lye; but the ashes of coal is not worth much. Bore small holes in the bottom of a barrel, place four bricks around, and fill the barrel with ashes. Wet the ashes well, but not enough to drop. Let it soak thus three or four days, then pour a gallon of water in every hour or two, for a day or more, and let it drop into a pail or tub beneath. Keep it dripping till the color of the lye shows the strength is exhausted. If your lye is not strong enough, you must fill your barrel with fresh ashes, and let the lye run through it. Some people take a barrel without any bottom, and lay sticks and straw across, to prevent the ashes from falling through. To a barrel of soap, it will require about five or six bushels of ashes, with at least four quarts of unslaked stone lime; if slaked, double the quantity.

When you have drawn off a part of the lye, put the lime (whether slaked or not) into three pails of boiling water. and add it to the ashes, and then let it drain through.

It is the practice of some people, in making soap, to put the lime near the bottom of the ashes when filling up the barrel; but the lime becomes like mortar, and the lye does not run through, so as to get the strength of it, which is very important in making soap, as it counteracts the nitrous salts which collect in ashes and prevent the soap from *coming*, as the saying is. Old ashes are very apt to be impregnated with them.

Three pounds of grease should be put into a pailful of lye. The great difficulty in making soap *come*, originates in want of judgment about the strength of the lye. One rule may be safely trusted.—If your lye will bear up an egg or a potato, so that you can see a piece of the surface as big as a ninepence, it is just strong enough. If it sink below the top of the

lye, it is too weak, and will never make soap; if it is buoyed up half way, the lye is too strong, and that is just as bad. A bit of quick lime, thrown in while the lye and grease are boiling together, is of service. When the soap becomes thick and ropy, carry it down cellar in pails, and empty it into a barrel.

Cold soap is less trouble, because it does not need to boil—the sun does the work of fire. The lye must be prepared and tried in the usual way. The grease must be prepared and tried out, and strained from the scraps. Two pounds of grease, instead of three, must be used to a pailful. Unless the weather is very sultry, the lye should be hot when put to the grease. It should stand in the sun and be stirred every day. If it does not begin to look like soap in the course of five or six days, add a little hot lye to it; if this does not help it, try whether it be grease that it wants. Perhaps you will think cold soap wasteful, because the grease must be strained; but if the scraps are boiled thoroughly in strong lye, the grease will all float upon the surface, and nothing be lost.

Boston Cultivator.

From the American Agriculturist.

Farm Horses.

If we except the large, mongrel, Pennsylvania cart or wagon horse, which possesses the greatest claims to a definite race—a breed, a distinct, peculiar breed of horses, the best fitted for the general purposes of a farm, the horse of all work, is not known in America.

In the six north-eastern, or New England States, horse racing has either not been practised at all, or tolerated in former times occasionally, by some of them, only to a very limited extent. Massachusetts and Connecticut have never permitted them. Yet what has been the result of horse breeding in these States? Briefly, it may be replied, that with comparatively no extra expense for costly importations, they have, till within a few years past, produced a more valuable, serviceable race of horses, than could have been shown from an equal territory in any other portion of the country. The Yankees, true to the instinct that sent them three thousand miles into the wilderness, broke loose from many of the dogmas of the day, and from none more effectually than the long established one, that successful racing was the only true and proper test of excellence in a horse. They bred exclusively from the manifest, tried, and acknowledged merits of an animal; and with some (yet, it must be confessed, with too little) reference to the merits of ancestry in the one selected for breed. Had the latter principle had that full and ample consideration to which experience has shown it entitled, it is believed their success in stock breeding would have been inferior to no other portion of the world. As it is, however, it must be acknowledged a fault, and though not a vital, yet a great one, in the practice of which no distinguished or general excellence can ever be reached. We have seen, in late years, how they have been surpassed by the southern portion of New York, and especially Long Island and New Jersey, in the greater number of superior roadsters, the natural result of a continued and thorough system of breeding choice mares to the best formed and most substantial imported blood stallions.

New England has in former times possessed some horses of unmatched qualities, which they have derived from various sources. Among many so distinguished, pre-eminently stood *Longo Intervallo*, the far famed Morgan horse of Vermont, and his more ancient compeer, the imported Barb Ranger, or, as he was subsequently called, Lindsey's Arabian. There is a tradition on our north-eastern coast, that a valuable Arabian stallion was, in the early settlement of that country, washed ashore from a stranded vessel, and running wild with an excellent breed of native mares, then ranging the woods, he founded the stock of Narragansett pacers.

The importation by Gen. Eaton, in 1806, of two choice Barbs, on his return from Tripoli, produced no marked improvement in the horses of Massachusetts, where they remained for many years.

The history of that remarkable animal, the Arabian Ranger, (unsurpassed, it is believed, by either the Darley Arabian or the Godolphin Barb,) as given in the Turf Register by Gen. Forman, is substantially the same as was related to me by that eminent importer and breeder, Charles Henry Wall, Esq.

He was white, something over fifteen hands high, of perfect form and symmetry, and was presented by the Emperor of Morocco, from the choice of his stud, to the commander of an English frigate, for some distinguished service.

Early during our struggles, in the formation of our infant cavalry, the attention of that invaluable officer, Capt. Lee, was called to a class of remarkably fine horses, the progeny of this animal, and from them he furnished his troop, which, for a combination of all the requisite qualities of such a body, from the leader to the private, both men and horses, have no superior. The favorite white horse of Washington, which Stuart has immortalized in his splendid picture, in which the animal is seen supporting the arm of his beloved master, as he stands with a countenance teeming with inexpressible emotions, watching from the battery the embarkation and retreat of the last of his country's invaders, is said to have been got by the Arabian Ranger. This noble beast, after having raised his reputation without the aid of the course, was, subsequently to the Revolution, sold as a special

favor, and at a high price, to Capt. Lindsey, and taken to Virginia, where he became the sire of several distinguished running horses, and among others, Tulip. Many of the best horses of the present day rank him in the line of their progenitors.

But, though we do not consider such a test essential to the selection of a horse for all the purposes of utility, yet we would by no means exclude such as commended themselves to a favorable notice from their other good points, in addition to success on the course. There is too generally, however, where all qualities of form, substance, and endurance, are satisfactory, an inherent viciousness of temper, a restiveness under restraint, or an untameableness of spirit, that renders animals too nearly allied to the thorough-bred, unsafe or uncomfortable companions for ordinary use. In emergencies, and when great exertion is demanded, they are just the thing required; but they are not the farmer's horse, and it generally needs some removes from the thoroûgh-bred to bring them within that class.

Good roadsters can be secured from many of the high-bred, or nearly pure animals, which may now be found in considerable abundance in many parts of the Union; for it is the recent observation of an experienced judge, that, thirty or forty years ago, it was the most difficult thing to procure a good horse in the Middle States, while now it is the easiest. Those having a trotting cross are preferable, such as Abdallah and Bellfounder, as they carry greater substance and more work-horse symmetry than the pure blood. Many of the descendants of the latter, especially, we have never seen surpassed for strength, endurance, and all other desirable qualities, within the same compass. We speak from personal experience, and considerable observation on the subject. A valuable filly we bred from the last, out of a thorough-bred mare, and sent to a friend in Massachusetts, has trotted in harness, drawing a heavy buggy and two persons, twenty-two miles in something under two hours, over an indifferent road. And, under the saddle, with a rider of one hundred and sixty pounds, over a very hilly road, she made nineteen miles in an hour and thirty minutes, and soon after returned the same distance in an hour and twenty minutes, in which, however, she had the advantage of ten minutes detention, for turnpike and other necessary stoppages. But her excess of blood has nearly rendered her useless for the harness—having run away with some, and fairly tired out all her drivers, and she is now turned out to breeding.

But even the trotter will not give us the horse of all work, the ever-ready, ever-patient drudge; equally safe to break in the trotting Nimrods to the stirrup, carry a grist to mill, or *tote* the urchins to school (strung, like Wethersfield onions, on the saddle and crupper,) drag the wagon to town, plough out the corn, work single or double before the oxen—or, in short, in any and every place required. He must be, also, a small and not over choice feeder, keeping in good health on any thing coming within his reach—oats, potatoes, hay, straw, or potato vines; or, if turned out to shirk for himself, equally capable of living on a wet marsh or a pine woods barren; never sick, never tired, and never out of temper. If we could wrap the skin of a Suffolk punch, or a well made, stout, Canadian pony, over a mule's carcass, with the ears and tail lopped off, it would give nearly the form and character required; and next to this, the mule, the Suffolk punch, or stout Canadian poney, is perhaps the very best thing to be had. There is a considerable range of the punch family in the country, which, if reduced to some regular system of style, in form, size, appearance, &c., might secure the object desired. There is a race of brown or frequently black horses, with a dark, brownish, or buff muzzle, like the nose of a bear, that possess extreme hardiness, and could well be incorporated into the breed required.

It is probable this every farmer's drudge, this horse of all work, could more effectually be secured by the introduction of the Norman horse than any other equally long bred and well defined animal. This race possesses all the needful strength, weight, and hardiness, when properly reared. They do not stand high in the withers; they fill a large collar, and throw great weight into it; their fore legs are good pullers, and their hind ones good pushers; and, if their head and feet are somewhat heavy, it is not of so much consequence, for the last prevent his sinking so deep in the mud, and the other will serve him with good masticators for his rough food, and he is not inclined to impair his constitution by carrying his extra weight over fast, abating his speed in proportion to his burden. The principal objection we note about him, is the undue quantity of hair, as we must confess to our preference for muscle, over mane, and tail, and fetlock gear. But a close system of breeding with judicious females would soon run out the surplus gaiters, which is his greatest objection, on account of robbing the road of its gravel, or the field of its soil.

Mares are decidedly more economical for farm work than geldings; and Youatt only expresses the best experience when he says, "they cost less at first, and the farmer will get a great deal more work out of them. There can be no doubt that, taking bulk for bulk, a mare is stronger and more lasting than a gelding; and, in addition to this, the farmer will have her to breed from.

The horse that has performed hard service during the winter, should always be permitted a free run at grass, when the first blades put forth in spring. There are medicinal properties contained in its juices then, never subse

quently afforded during the same season, which do wonders in purging away all the bad humors, or incipient diseases consequent on his too intensely artificial state; and his constitution, by this simple means, becomes refreshed, renewed, and invigorated (for the individual so indulged,) tantamount to an hereditary improvement in his blood. R. L. ALLEN.

Buffalo, May, 1843.

The Crops, and General Appearance of Vegetation.

Never has there been a more promising appearance and prospect for superabundant crops of grain, grass, and other vegetable productions of the earth, in the neighborhood of this city—and, as we learn, the whole western country—than at the present period. It is, indeed, a most uncommon season.—Nature, in addition to our fertile soil, seems, both in respect to the earliness of the season and favorableness of the weather, to have pushed forward her utmost exertions, up to this time, to throw into the lap of the husbandman an extraordinary quantity of her benefits. Whether all these fortunate combinations of circumstances, so conducive to fruitfulness, will continue, yet remains to be proved; but, at any rate, we have no ground for prediction or doubtfulness that Providence will not perfect the good work, and, if it should not do so entirely to the satisfaction of our ever craving desires, we must bow in humble submission to the over-ruling hand, and be thankful for the many blessings that have been showered upon man, in the valuable, various, and lovely shapes of fruits, vegetables, and flowers that cover our teeming and beautiful earth. E. J. H.

Qualities of Plants.

Will plants imbibe any thing prejudicial or otherwise, if the the matter contained in the soil exists in a superabundant quantity in lieu of their proper aliment? or are they sometimes driven, like animals, from necessity, to make use of unwholesome food, which alters the constituents of their bodies? All roots, fruits, &c., have their own peculiar, uniform taste; but they differ occasionally in a remarkable degree. Grapes (of Tokay) on slate, had a peculiar delicious, rich flavor. Parsnips (Berlin) on sandy soil, were very sweet flavored and highly esteemed. Potatoes (Irish,) grown on a gravelly soil, and manured with sea-weed, were excellent, and tasted like new flour. Celery (Sandwich) produced, in deep sand impregnated with salt, was very different from that grown elsewhere. Carrots, on deep, warm sand, with chalk bottom, were very sugary. Strawberries (Huntingdon,) raised in rich, moist loam, had a most nauseous flavor; and Jerusalem artichokes, on the same kind of soil, had a watery, earthy taste. These have been brought prominently under my notice, but other plants, trees, &c., are likewise affected by the soil in which they grow. Firs, &c., grown on wet land, are valueless for timber, in being deficient of some particular substance, and having too much of something injurious to them. NEMO.

[Plants are unable to reject the fluid matters that are presented to their roots, and consequently, where such matters unsuitable to them exist in land, they and their products are necessarily affected.—*Ed. Chron.*]

The Curculio.

Mr. J. A. Kenrick, of Newton, in the Magazine of Horticulture, says:—"Having heard salt recommended, [as a protection against the curculio,] I concluded to make a trial of salt lye, having a quantity at command. The yard contains about one-eighth of an acre, in which I have about a hundred trees. In the spring, I had about two cords of meadow mud, well saturated with lye, evenly spread and spaded in. (The year previous about the same quantity of dock mud was applied in the same way.) About the first of June, I put on a load of about five hogsheads (salt lye) in addition, pouring it from a large watering pot, about two common sized pailsful to each tree, saturating the whole ground in the yard; and, so powerful was the application, that there was not a weed to be found the height of two inches during the season. Every tree bore well, and many of them were so completely loaded with fruit, that I was obliged to stake them, to prevent their breaking down. There were a very few curculios which found their way up the trees, but not a twentieth part enough to thin the fruit as they ought to have been, which prevented their attaining the size they otherwise would have done."

Destructive Insects.

This season, owing chiefly, no doubt, to the past mild winter, is very prolific in noxious insects. The caterpillars have been very injurious to the orchards around the city and in the country. There are two kinds at least, one the common nest caterpillar, the other a kind of (what are commonly called) measuring worms—a small, dark brown caterpillar, about an inch in length, when full grown, with feet only in the fore and hind part of the animal, and making very quick progress, like other measuring worms, by first planting its fore feet, and then, after doubling its length, its hind feet immediately after.

The foliage and fruit of a very large orchard in Newport are almost entirely swept off; and we learn that several orchards on the Ohio side are also cleared in the same way—the joint work of the nest caterpillar and this measuring worm, and mostly by the latter insect.

The curculio commenced its ravages on the plums proportionably early in the season. There have been several remedies proposed from various quarters of the country, but they are too late to be very successfully attempted this year. Mr. Kenrick, near Boston, seems to have been fortunate with his trial of salt lye, by drenching the ground all around the trees. Professor Cleveland, of Bowdoin College, in 1841, after removing the soil around the trees to the depth of two or three inches, and, as far as the limbs extended, deposited in the opening a layer of lime, recently slaked, and still warm, about half an inch in thickness, the soil being directly restored to its place over the lime, and closely pressed down upon it. He had an abundant crop of well ripened plums. He did not succeed with plenty of salt in 1843.

The fire blight (*Scolytus pyri*) has also been very destructive to the pears in this neighborhood. Apple trees seem to be affected a good deal in like manner *all over the branches*, probably by a similar minute insect, and we observe the same thing on some of our pear trees. Peaches have been very early stung by the curculio.

All these insects, with many others, are well worthy of our careful investigation, and, no doubt, will receive the best attention from our Horticultural Society, in due time. Indeed, we are promised some communications from observant, industrious, and able members, which will soon appear in the Farmer and Gardener. E. J. H.

Pruning.

"Does the lopping off of a branch increase or retard the general growth of a tree?" The principles of vegetable physiology, that relate to the growth of trees, are as follows:—The sap is absorbed by the roots, ascends the stem, traverses the branches, is elaborated in the leaves, and descends again towards the root, depositing a new layer of wood, and also the peculiar secretions of the species. If, then, we deprive a tree of one of its boughs, do we not take from it a number of its digestive organs—its leaves? and do we not thereby impair its growth, at least its increase in thickness? A branch, inasmuch as it bears leaves, is a means of productiveness, and not of waste. to a tree. I should, therefore, be inclined to answer in the affirmative, and say that pruning, to any extent at a time, must be injurious, at least, as far as regards increase in diameter.

There is one point connected with prun ing, which I do not think has yet been satisfactorily determined. It is this:—Does a tree absorb the same quantity of sap from the ground when deprived of several of its branches, as it did while they formed integral parts of it? The elucidation of this question would throw some light on the effects of the operation of pruning.—*Correspondent of Gardener's Chron.*

To Make a Land Roller.

Take three cast-off fore wagon or other small wheels, place two of them six feet apart, and the other in the centre. Fix an iron axle through the naves of each. Upon these, strong planks, cut very narrow, and bevelled at the edges, firmly nailed lengthwise. Any additional weight that is necessary may be put on the axle in the hollow.

To the Editors of the Western Farmer and Gardener.

Cultivation of the Vine.

Gentlemen:—If the following remarks on the vine are deemed worthy of a place in your valuable paper, you are at liberty to insert them.

It seems that there is a great interest beginning to be excited in this neighborhood about planting grape vines; and, thinking that the proper mode of cultivation is very little understood, I will proceed to describe the way I conceive to be the best. I generally prepare the ground to plant new vineyards by ploughing very deep — say, from fifteen to twenty inches; or, if the situation is too sideling, by trenching and well turning up the ground, two feet deep or more, according to the depth of the soil. Take the rocks or stones all off, and wall it to prevent washing. I proceed then to plant Irish potatoes, which will leave the ground in good order to receive the vines. I then, the following spring, prepare my ground by ploughing and harrowing, so as to make it perfectly level; I then stretch a line, and proceed to plant my vines with roots. I have holes made eighteen or twenty inches deep, by eighteen long, and twelve wide. I then take good top soil, throwing three or four inches in the bottom of the hole, and taking the roots, which should be two years old, lay quite level in the bottom of the hole all those parts which the roots spring out from; and, being well spread, bind up the young wood at one end of the hole to the side of a stake; I fill the hole up first with the top soil, well tramped, trimming the vine to two eyes or joints. I then do the next in the same way every three feet, till the row is completed. I lay off the next row six feet from the first, until my ground is filled up.

Some may object to the width between the rows—preferring but five feet. Where it is intended to work with the plough and harrow, six feet is not too far apart. After the vines are planted, keep the ground clean from weeds and grass; tie the vines to the stakes as they grow up, pulling off all but the two main shoots. Keep the side shoots off, as well as the suckers.

The next spring, in March, all the shoots must be cut away, leaving only a stump above the ground, with two or three eyes. This will complete the first pruning. Then two or three of the young shoots must be carefully tied to the stakes as they grow, all the surplus shoots being pulled off as soon as possible, while they are tender.

The second spring, all must be cut off, except one of the straightest and handsomest of the shoots, which is to be pruned twelve or fifteen inches long, and tied to the stake with willow or bark. This will comprise the second pruning. Then, three or four of the uppermost shoots must be left and encouraged, by succoring and tying them to the stakes as they grow. Some of them will have fruit, which will come to perfection if taken care of.

The third pruning in vineyards ought to be done nearly like the year before, and the shoot left must be one of the highest, handsomest, and straightest. This branch must be left long enough to reach to the next stake, and fastened to it. It is what we call a horizontal branch, or more commonly, bow. The Germans generally tie this bow around the stake in the form of a hoop; a horn is left of one of the remaining shoots, with two or three eyes: the rest are to be cut off. As to the horn, it must be established where it is most likely to become a handsome and well grown vine stock. This horn is to produce wood for the next year's pruning.

The vine dresser must always keep in view not to increase too much the height of the stock, nor to have it made too low, but to keep it about eighteen or twenty inches high. The next year, and, at every subsequent pruning, the horizontal branch must be cut off, and another made out of the shoots which have grown out of the horn. A very strong vine may have two such branches; and, if by accident no good shoot should have sprung out of the horn to

make a bow, any of the others must serve, provided the vine appears to be vigorous. If it appears weak, the bow must be omitted until the vine has recovered its strength. Here the judgment of the vine dresser must be guided by his experience. Long pruning will give more fruit, but will exhaust the plant, and the fruit will not be so good.

Wherever wine is to be made out of grapes as soon as they are fully ripe, the more leaves there are on the vine when the fruit is ripening, and the more green and healthy they are, the better will be the wine. It is my humble opinion, from what I have observed on grape vines, although I may differ in this with some other vine dressers, that, instead of pulling off leaves from the vines, it is better to use all industry to prevent their untimely fall, by keeping the ground well ploughed and clean, and all the other work done neatly and in season; and, by destroying all the insects that may do injury to them. Happily there are not many caterpillars that do injury to the leaves; the green worm is their worst enemy.

Tying and fastening the vines to the stakes is of urgent necessity, and cannot be dispensed with. It must be begun at the time of pruning. First fasten your stock carefully to the stake, then the bow or branch, with pieces of osier or willow; and a ligature done in good time will straighten a crooked plant, and also the young shoots as soon as they are long enough, which is commonly when grapes are about to blossom, and as they grow. Rye straw is, in the latter case, sufficient; but the inside of elm or linn, or pawpaw bark is better. Yours, &c.,

JOHN E. MOTTIER.

From the American Farmer.

Lime for Plum Trees.

Messrs. Editors:—The late discussion at an agricultural meeting in your State House, concerning the efficacy of salt in preventing the attacks of the curculio upon plum trees, has reminded me of a few experiments, which I have recently made on this subject. These experiments have not been sufficiently numerous to justify a general conclusion; but I should like to know if others have obtained similar results.

Previous to 1841, several of my plum trees had been so attacked by this insect, that I scarcely obtained a ripe plum. Early in the spring of that year, as soon as the blossom buds began to swell, I removed the soil around the tree to the depth of two or three inches, and as far on all sides as the limbs extended. I then deposited in the opening a layer of lime, recently slaked and still warm, about half an inch in thickness. The soil was immediately restored to its place over the lime, and closely pressed down upon it I had an abundant crop of well ripened plums. In the spring of 1843, I again applied lime in a similar manner, and with the same success.

In the autumn of that year, it was stated in some agricultural journal, that salt sprinkled around the tree in sufficient quantities to render the ground *whitish*, would prevent the ravages of the curculio. In 1843, I made the experiment. The trees blossomed well, and showed an abundance of fruit; but every plum was attacked by this insect, and fell to the ground.

I intend to apply the lime again the present spring; and, if I obtain a good crop of ripe plums, my confidence in this remedy will be strong.

Yours respectfully, P. C.

Brunswick, Me., March 23, 1844.

EDITORIAL REMARKS.—The above experiment of Professor Cleveland, of Bowdoin College, may prove to be valuable to horticulturists, in enabling them to guard against the most formidable enemy of a valuable and delicious fruit. We hope that others will try the experiment, and we shall be pleased to learn the result.

It is a pleasing consideration to cultivators that those gentlemen who are distinguished not only in our own but in foreign countries, for their deep researches and attainments in those sciences that are intimately connected with agriculture and its kindred branches, are directing their attention to agricultural improvements, and thus applying science to the most useful practical purposes. Every operation in nature, by which the farmer produces his crops, and rears and fattens his animals, is strictly in accordance with the natural sciences, and the more these sciences are understood by cultivators, the lighter will be their labors, and the greater their success.

Effects of Leached Ashes.

Twelve years ago, some time in the month of June, I turned over a quarter of an acre of green sward, for the purpose of raising a crop of ruta bagas. My manure had been so nearly "used up" for other crops, that, by close scraping, I was able to get but one cart load; to this, I added one load of leached ashes, (probably about thirty bushels—at any rate, I remember they were hauled from the potash at one load, with one pair of oxen.) This formed a dressing for the piece, scanty as it was, and it produced a fair crop of turnips. The next year, the land adjoining was broken up, and the whole planted in corn. This piece of ground has been treated ever since exactly in the same manner as that on each side of it; and, in every crop except the corn crop, there has been a perceptible difference in favor of the piece on which the ashes were put, and the last season a greater difference than ever before. The field had been mowed so long as to be what we term "bound out," that is, it produced nothing but spear grass, except upon this quarter of an acre, which had twelve years before received the dressing of leached ashes; on this, there was a crop of red and white clover, very thick, but short; when the clover was in blossom, the contrast with the adjoining parts of the field was so great as to be distinctly seen at the distance of half a mile. It was the opinion of the man who assisted me in haying, that this quarter of an acre produced three times as much hay as an equal piece on either side of it, and in his opinion I fully concur.—*Maine Farmer.*

From the Southern Cultivator.

Cure for Swiney.

Swiney is a disease by which many of our finest road horses are annually retired from our saddle or harness, and turned out to pasture as almost worthless, or sold for one-third their value. We have seen and tried a number of prescriptions for the relief of this troublesome affection of the shoulder, such as ironing, rubbing with the oil of earth worms, and various stimulating liniments, the introduction of seatons, lengthy incisions, with a deposit of poke root, to produce suppuration, &c.; many of which are worthless, and others both cruel and injurious.

The disease may be cured in less than a month, and the horse used daily, if necessary—though it is best to give him rest if convenient. As soon as you discover the disease—which will be known by noticing the horse while standing after use, and it may be seen even in the stall; he will sustain the weight of the body on the opposite limb, and put forward the limb of the affected side, permitting it to touch the ground but lightly, limps when hurried down hill, the muscle upon the shoulder becomes thin, and in many instances the skin contracted and tight—put a twist upon his upper lip, and introduce the small blade of a common pocket knife, (the point of which must be sharp,) into the thinnest part of the shoulder, which will be near the upper margin of the shoulder blade, and push it directly in until you reach the bone, holding the knife as you would a pen when writing, and scratch up the membrane that covers the bone for a space the size of a silver dollar; the knife may then be withdrawn, and, after the small quantity of blood that follows is wiped away, the orifice will not be seen. The knife may then be introduced in one or two places below the first, and used in the same way, and the operation is over. This may be repeated in six or eight days. We have but seldom found it necessary to repeat the operation more than twice or thrice, and in many cases a single operation will effect a cure.

Appling, April 10th, 1844.

Important to Farmers.

Hart Mussy, Esq., of this village, took a small portion of the corn with which he planted a field, and soaked it in a solution of salts of nitre, commonly called saltpetre, and planted five rows with the seed thus prepared. Now for the result.—The five rows planted with corn prepared with saltpetre, yielded more than twenty-five rows planted without any preparation. The five rows were untouched by the worms, while the remainder of the field suffered severely by their depredations. We should judge that not one grain saturated with saltpetre was touched, while almost every hill in the adjoining row suffered severely. No one who will examine the field can doubt the efficacy of the preparation. He will be astonished at the striking difference between the five rows and the remainder of the field.

Mr. M. also stated the result of another experiment. He has a fine, thrifty, healthy apple tree, about twenty-five or thirty years old; but it has never, in any one year, produced over about two bushels of apples. While in blossom last spring, he ascended the tree and sprinkled plaster freely on the blossoms, and the result is that it will this year yield twenty bushels of apples.—*Concordia Intelligencer.*

Pavement--A Remedy for the Curculio.

Messrs. Editors:—The great interest evinced of late for horticultural improvement, has resulted in such wonderful discoveries, that fruits of all kinds will soon be a drug in our markets. The curculio has hitherto destroyed all our plums; but it appears, from a late discovery of Mr. Kenrick, that our whole study should now be to devise new methods to increase the breeds, as the cheapest way to thin the fruit on our trees. Mr. Kenrick has proved, from a *whole year's* experience, that salt strewed under the plum tree, is an effectual bar against the depredations of that insect. But I have, from an experience *equally extensive*, discovered a complete preventive against the ravages of the insect, and one at the same time necessary to the health and beauty of the tree, and the size and perfection of the fruit. Twenty years since, I planted in my garden a large number of plum trees. After waiting years, and no fruit coming to perfection, I removed a part of the trees near to my house, and paved the ground around them with brick; and every tree in the pavement yearly produces a crop of fine fruit, whilst all those in the open ground are destroyed by the curculio, and never till the last season perfected a single fruit. Ripening no fruit, the trees were neglected, and went without pruning. Last spring, in my absence, all the plum trees in the open ground were pruned, and all the trees escaped the ravages of the insect. Ergo, *pruning* is an *effectual remedy*. I will not deny, that *salt* is equally so; but I am fond of having the reason for a thing before I give it credence. Why pruning should have this effect, I can give no possible reason; but one of my German tenants gave me one why salt should. "Salt," said he, "save de pork—why he not save de plum?" But even this cogent reason does not convince me. All the effect of salt must be soon evaporated by the rains and air. The depredations of the curculio continues till near the ripening of the fruit. When I have wanted to save a plum in the open ground, to ascertain its quality, I have covered one or more plums, as soon as the blossom is off, with gauze. The first season, when the fruit had attained its full size, I cut off the gauze, deeming the fruit might ripen better. In three days after the removal, all were stung.

So much evil is done by experiments in these days, that I am almost disposed to discard them, for the reason the boy gave, when going to mill, for continuing a stone in one end of the bag, as an offset against the grist in the other end. When told to throw away the stone and divide the grist, he refused, saying, "Daddy never done so!" One of my neighbors recently saw a piece in a horticultural paper, saying, that the best time to prune, was when the tree was in full growth. His trees had long been neglected, and he gave them a close pruning early in June, and killed two-thirds of them by it.

Although my plums in the open ground were all destroyed for twenty years, some of my nearest neighbors, whose gardens were within fifty yards, had in general an abundance of fruit. Before we promulgate our great discoveries, we should give them more than one season's test; and I would, therefore, advise all lovers of good plums, not to trust either pruning or salt. A pavement is certainly in general a safe remedy. But one reason can be given for it: the insect has the instinct, not to deposit its egg where the young, when it falls, cannot perforate the ground to shelter itself through the winter.

A YEAR OLD.

Sores with harness, saddle, &c., should in the first place be washed and kept quite clean, covering them with some unirritating or balmy application, and defending them against farther mechanical injury; nature will speedily effect the cure. A young horse should not have his food suddenly changed from green to dry—oats, hay, and other harsh food; this often causes the tender roof of his mouth to become so swollen and inflamed that he cannot eat; the farrier then says he has the *lampass*, and sears the roof with a hot iron; but his usual soft food, for a week or two, will effectually cure this.

The Blight,

Upon the pear and apple trees, has made its appearance amongst us, and is steadily progressing. Its cause has for years been unknown, and, as far as I know, has not met with any satisfactory explanation here. It was seen in the last season, upon pear trees on Dr. Flagg's place, upon Mr. Brigham's, and perhaps others, but only in a limited degree. The appearance was then cut away and burned. This season, it has been very destructive to pear trees upon Mr. Ellis' place, (last year Mr. Brigham's,) and continues so; it is also, to a greater or less extent, to be seen upon almost all the pear trees (and somewhat upon the apple) in this vicinity. All persons who have paid any attention to this scourge, will do a great favor, and perhaps be the means of leading to the discovery of the cause, by sending to this paper a concise account of what they have *observed*—not what they suppose.

One difficulty in the way of any correct result is, that investigators take so much upon trust—Mr. Smith refers to Mr. Harris, Mr. Harris to Mr. Buel, Mr. Buel to some man in Massachusetts, who *says* it is an insect or fly, &c. &c. I have examined the trees affected several times, and in various places, in connection with men of discrimination. The results are almost nothing. We find that the larger and fruit-bearing trees are the most subject; that it *usually* commences at the top of the young shoots, but not always, for in some instances the spurs had withered first, and the blackening of the bark had extended both up and down. In one young tree growing upon a quince stock, a blackened limb had been cut away, and the blackness could be seen, some days after, on another branch, above the place from which the other was cut; but the young shoot and top were as fresh and green as ever. The quince suckers coming from the ground were withered in the same way. We examined the axils of the leaf with a strong lens, but could find no brown aphis, such as Dr. Mosher speaks of as having come under his observation. At the base of the young shoots, where the bark was wrinkled, the white shell cases of an insect were inserted in the bark; and from these, Mr. Brigham, Dr. Smith, and others, said a white, downy insect came out, which Mr. Brigham supposed to be the one described in Mr. Harris' work, (an extract from which follows these remarks.) He afterward showed it to me, but it does not seem to me to answer the description: it is very active, and springs from the branch. That mealy aphis, I have in numerous instances found upon young trees in my nursery, answering in all particulars to the description, except that it does not prove deadly to the tree; and it may now (13th May) be seen upon an apple tree in the yard of T. G. Lea. No such insect has been seen upon the pear tree by any person examining with me. The eggs or shell cases mentioned were in great numbers upon a young tree, (which Mr. Ellis' gardener had marked as containing them three weeks since,) and no appearance of blight was to be seen.

Is it an atmospheric effect? If so, why is one tree, or a part of one, affected, and not another? Is it from the sting of an insect? Does it come from any affection of the roots, from the subsoil, or otherwise?—From the large trees being most subject, it might seem so, but that they are subject to it when growing upon both clayey land and gravelly. Is there any worm or insect at the root? This Mr. Ellis' gardener promises to investigate. In Mr. Longworth's garden, Mr. Sleath showed me, upon a tree fifteen years old, a branch three or four inches in diameter, the bark of which was killed for half its circumference. Under this bark, he says, he found a minute insect, and that this will girdle the tree; and then, of course, the top will wither and blight, This does not seem to be the same as this common blight.

Since writing the above, two instances of this kind have come to my notice. The trees that flowered full

and set their fruit were much affected, while the others were but slightly injured, or not at all. Is this a general thing? Cutting off and burning the blackened parts, well down into the healthy wood, is the only remedy that has been hit upon. C. W. ELLIOTT.

"These downy plant-lice are now placed in the genus *Eriosoma*, which means woolly body, and the most destructive species belonging to it was first described, under the name of *Aphis lanigera*, by Mr. Hausmann, in the year 1801, as infesting the apple trees in Germany. It seems that it had been noticed in England as early as the year 1787, and has since acquired there the name of American blight, from the erroneous supposition that it had been imported from this country. It was known, however, to the French gardeners for a long time previous to both of the above dates, and, according to Mr. Rennie, is found in the orchards about Harfleur, in Normandy, and is very destructive to the apple-trees in the department of Calvados. There is now good reason to believe that the miscalled American blight is not indigenous to this country, and that it has been introduced here with fruit-trees from Europe. Some persons, indeed, have supposed that it was not to be found here at all, but the late Mr. Buel has stated that it existed on his apple-trees, and I have once or twice seen it on apple trees in Massachusetts, where, however, it still appears to be rare, and consequently I have not been able to examine the insects sufficiently myself. The best account that I have seen of them is contained in Knapp's "Journal of a Naturalist," from which, and from Hausmann's description, the following observations are chiefly extracted.

The eggs of the woolly apple-tree louse are so small as not to be distinguished without a microscope, and enveloped in a cotton-like substance furnished by the body of the insect. They are deposited in the crotches of the branches and in the chinks of the bark at or near the surface of the ground, especially if there are suckers springing from the same place. The young, when first hatched, are covered with a very short and fine down, and appear in the spring of the year like little specks of mould on the trees. As the season advances, and the insect increases in size, its downy coat becomes more distinct, and grows in length daily. This down is very easily removed, adheres to the fingers when it is touched, and seems to issue from all the pores of the skin of the abdomen. When fully grown, the insects of the first brood are one tenth of an inch in length, and, when the down is rubbed off, the head, antennæ, sucker, and shins are found to be of a blackish color, and the abdomen of a honey yellow. The young are produced alive during the summer, are buried in masses of the down, and derive their nourishment from the sap of the bark and of the alburnum or young wood immediately under the bark. The adult insects never acquire wings, at least such is the testimony both of Hausmann and Knapp, and are destitute of honey-tubes, but from time to time emit drops of a sticky fluid from the extremity of the body. These insects, though destitute of wings, are conveyed from tree to tree by means of their long down, which is so plentiful and so light, as easily to be wafted by the winds of autumn, and thus the evil will gradually spread throughout an extensive orchard. The numerous punctures of these lice produce on the tender shoots a cellular appearance, and wherever a colony of them is established, warts or excrescences arise on the bark; the limbs thus attacked become sickly, the leaves turn yellow and drop off; and, as the infection spreads from limb to limb, the whole tree becomes diseased, and eventually perishes. In Gloucestershire, England, so many apple-trees were destroyed by these lice in the year 1810, that it was feared the making of cider must be abandoned. In the north of England the apple-trees are greatly injured, and some annually destroyed by them, and in the year 1826 they abounded there in such incredible luxuriance, that many trees seemed, at a short distance, as if they had been white-washed.—*Harris' Treatise on Insects.*

The Peach Tree Curl.

"The peach tree suffers very much from the attacks of plant lice, which live under the leaves, causing them by their punctures to become thickened, to curl, or form hollows beneath, and corresponding crispy and reddish swellings above, and finally to perish and drop off prematurely. Whether our insect is the same as the European aphis of the peach tree, (*Aphis perdicae* of Sulzer,) I cannot determine, for the want of a proper description of the latter. The depredations of these lice is one of the causes, if not the only cause, of the peculiar malady affecting the peach tree in the early part of summer, and called the blight."—*Harris' Treatise on Insects.*

In looking over the transactions of the London Horticultural Society, I find that the curl is attributed to cold and chilling winds, which check suddenly the flow of the sap. Upon examining, this spring, a number of branches affected in this way, I found in one instance the aphis under the leaf. I found upon these leaves a minute black beetle, and the same, or like it, upon

the plum trees—quite as many of them as of the curculio.

This affection usually disappears before the first of June, and does not seem seriously to affect the health of the tree. C. W. E.

The Strawberry.

To John H. James, Esq.

Dear Sir:—Your letter to Mr. Hovey I met with a few minutes since. You are in an error, in supposing that I have ever contended for the separate existence of male and female flowers. Every flower contains both the male and female organs; and, in the White and Monthly, both organs are always perfect in the same blossom, as far as my experience goes. In other kinds, the male organs are more or less defective in one set of plants, and the female in the other; and, in the Hudson and some other varieties, it amounts to a complete separation of the sexes. The male organs are so defective in one set of plants, and the female in the other, that an acre of either would not produce a single fruit. In some of the male (staminate) varieties, more or less of the blossoms are also more or less perfect in the female organs, and will produce more or less fruit; but I have never seen a female plant with the male organs sufficiently developed to produce a single perfect fruit. Hovey's Seedling, and some others, may prodce deformed berries.

I have one kind (and it is the only one I have met with) of the male Scarlet, that almost every blossom produces a perfect fruit. The fruit is sweet and finely flavored, and ripens earlier than any other strawberry; but it is small. The Iowa and Wilmot, and some other male varieties, have a few of their blossoms perfect in both organs, and bear a few very large berries.

You deem that I may be in an error, in saying that the pistillate plant never becomes staminate by cultivation or running. For twenty years, I kept the male and female Hudson in separate patches, to be certain in making new beds, and neither ever produced a single fruit. You naturally infer it, because the female soon disappear where male plants stand near them. I keep my male and female plants in separate beds, every fifth bed being a male. Ill health prevented my giving my vines personal attention last season. A bed of a new female seedling of my own, stood next to a bed of the Iowa male; and, when they blossomed this spring, I for some days supposed that not a single plant of my seedling female remained, so completely had the Iowa male overrun the bed. Within the last two days, I discover a few small plants of my seedling, but not one plant to the hundred. The male plants always bloom first, and are at times out of blossom before all the females have bloomed.

I discover that Mr. Hovey still adheres to his opinion, as regards the Scarlet and Pine strawberries. He should be a much better judge of his own offspring than I am, for I formed my opinion of it from the blossom; but I will present him with a silver cup, of the value of one hundred dollars, whenever he shall make a bed of his seedling produce crops of perfect fruit, distant from all male plants. He may place as many female varieties in the vicinity as he wishes. I am this spring giving it a fair test, and the subject is also before our Horticultural Society. They have appointed a committee of twelve—the one half practical gardeners, who raise the strawberry for market, and the other half good botanists; and the question will be put at rest, as Mr. Buchanan, Mr. Jackson, Mr. Ernst, and others, have set out plants to test the principle. I have set out in a bed, separate from all others, the Keen's, Mottier's, and Hovey's seedling; Necked Pine, Hudson, Mammoth, and my own seedling, all female plants; and, in a distant square, all the same female varieties, with the the Iowa male near them. I have also planted the female Hudson adjacent to the White, Monthly, and Lagrange, believing these three are distant species, and will not impregnate the Scarlet or Pine. The Lagrange is a male, but perfects a few very large berries, and is the strongest growing plant I have ever met with; it came from the garden of Lafayette. With this strawberry I have but little acquaintance, for I have never been able to induce the boys to steal it, even when tempted by a high stone wall. I have never seen it for sale in our market. There are but few who would accept it as a present. But even of this species, I do not believe a single variety can be produced, in which both organs are all perfect in the same plant.

I obtained from Mr. Howarth, horticulturist and florist, a few years since, what we call the Necked Pine, and still have it in perfection. It is defective in the male organs, and I have never seen a male plant of this variety. I yesterday examined, at Mr. Howarth's, what he calls his beds of this fruit, but not a single female plant was to be found among them. He will be a strong advocate for the doctrine, that the bearing vines became barren by running. The truth is, I found among the plants, when I got this variety from him, a few male plants of some other variety. It is about four years since, and, in that time, his gentlemen have kicked all the ladies out of bed!

I have been at a loss for terms so to express myself as to enable a person not a botanist, to distinguish the male from the female plant by the blossom. I was attempting it in vain, a few day since, when the young son of one of my German vine dressers conveyed the idea in a few words. "Why," said he to the person, "you not understand; the husband, he always have de *beard*—de frow, she have none." A

quire of paper could not give a more definite description. In the male plant, the face of the plant is covered by a long yellow beard, that almost hides it. The female has the beard, but so closely *shaven*, as not to be perceptible to the naked eye. The male blossom is generally also of double size.

It is useless to send East for strawberry plants, as I have generally had all males sent me. Mr. Jackson, of our city, pays great attention to this subject, and, in sending one hundred plants, sends ninety females and ten males, in separate bundles. I should be pleased to learn the character of the plant that Mr. Keen raised from seed. The plant, as figured in Hovey's Magazine, and as I saw it at Col. Cushing's, in Boston, is a male, and a portion of the blossoms will bear a large fruit. The Keen imported by Mr. Buist and myself, is a female, and will not by itself produce a crop of perfect fruit. Relying on the assurance of the gardener, that each of my beds was without mixture, I have given to all applicants the different kinds. They will justly doubt the accuracy of my observations, when, in place of bearing plants, some will find they have all males: if they will call next season, they shall not be disappointed. As far as we have experience, the Hovey proves a better bearer than the Keen; the fruit is as large, if not larger, and of equal quality.

As every blossom contains both the male and female organs, in a greater or less degree of perfection, it is of the Hudson only that my experience enables me to say, that a male or female plant, by itself, would not in twenty years produce a perfect fruit. As I have observed, the male Wilmot and Iowa produce a few very large, perfect berries, and many deformed ones. In a favorable season, and a clay soil, the female organs will be more developed, and the quantity of fruit increased. Hovey's seedling will, by itself, produce more or less imperfect fruit. In favorable soil, and a fine season, it is even possible that the male organs should be so far developed as to produce a partial crop of perfect fruit. Mr. Downing, of Newburgh, N. Y., is, I presume, particular in sending both male and female plants, where orders are made, as he is an advocate of the principle; and Mr. Buist, of Philadelphia, has, by experiment, come to the same conclusion.

N. LONGWORTH.

P. S. *May* 23.—My Keen's seedling is now ripe; it is a different fruit from Mr. Buist's, and a better bearer. Neither kind is quite equal to the Hovey in size. For two years my Iowa male bore a tolerable crop of very large fruit; this season it bears but few. N. L.

Melons and squashes will intermix at short distances.—*Scrap Book.*

Heart's Ease, or Pansy, (*Viola tricolor.*

Pansies, sweet tenants of the shade,
In purple's richest pride arrayed,
Your errand here fulfil.
Go! bid the artist's simple strain
Your lustre imitate in vain,
And match your Maker's skill.

It would be impossible to trace this beautiful flower to its origin, from its having passed under different names. The Greeks called it *Phlox*, a name now assigned to a very different flower. Some trace its name and origin to the days of fable, and identify it with Io, daughter of Midas, who, as the early poets say, was changed by Diana to a Violet, to hide her from Apollo, who was enamored of this earth-born beauty. It is a lovely allegory; for this modest flower, after the lapse of many centuries, still retains the bashful timidity of the nymph, partially concealing itself in its own foliage, and that of other neighboring shrubs and plants, and shrinking from the gaze of the Sun, in his vernal search for his long lost Io, the object of his love.

In modern times it has gone by the more prosaic names of "Love in Idleness," "Johnny Jump-up," "Heart's Ease," "Ladies' Delight," &c., but as we are adopting French fashions in almost every thing, this pretty plant has taken the cognomen of Pensée, or Pansy, by which it is now generally known in Europe and America.

It has grown much into repute of late years, with florists; twenty years ago, its size did not exceed a ten cent piece, though attractive to the eye of every person who had the least pretension to taste or love for flowers. I have seen children sit in a garden and look with admiration for a long time, as if conscious of its surpassing beauty. By hybridizing this splendid variety of Violets, the florist has brought them to the *ne plus ultra* of perfection, and we now see them of an enormous size. I have three very fine ones in my garden, of which one in particular is larger than a silver dollar. It is a light color, and not very showy, but the eye is beautifully pencilled, rendering it a valuable plant in a large collection.

I lately paid a visit to Mr. James Howarth's nursery, about four miles below the city, and candor and justice require that I should say he has the finest collection in the western country (so far as I have seen;) and I would advise all lovers of good flowers to go and see them; for if nature ever designed any flower to captivate our senses, it is the Pansy in his Green House. He has one in particular, although not the largest, that appeared to great advantage—being bold, well formed, and standing with majestic loftiness above the foliage, as if defying the other plants to compete with its beauty, either in texture or vivacity. The purple of the upper petals I should say is inimitable, while the lower is a clear yellow, beautifully contrasted, and the eye is distinctly pencilled.

The sight of these beautiful flowers ought to encourage a refined taste among the ladies in particular, it is so well adapted for their culture, and is so easily handled; and when planted in borders, in their tasteful style, what could be more attractive? The unbounded and endless variety of colors possessed by this flower, convinces me it is bound to become a favorite with us, and if the ladies of Cincinnati would enter the arena of competition, what a magnificent show could be made before the Horticultural Society! No department in Flora's whole catalogue could be more congenial to the refinement of ladies, than this unsurpassable one; and to enable them to cultivate with the greatest ease, I will lay down such instruction as will give them the least embarrassment.

The seed should be sown in pans in the months of February and March, and again in August and September, in a sandy loam, and as evenly as possible; for if crowded, the largest plants will cause the lesser to damp off. It will be necessary to keep the plants well watered, and when the seedlings have acquired a few leaves, transplant them. On one point I would caution young beginners—never transplant in the months of June, July, or August, as the weather in this country is too warm;—consequently, your plants would die for want of nourishment, before they could make fresh root.

Roots may be divided any time in the year, with the exception of the months above named for transplanting. In dividing the roots, do not use a knife; let it be done with your fingers, and let each part be furnished with root fibres; and before you put them into the ground or pot, be sure you wash the soil from the roots, as the Pansy is a great deteriorator of soil, which makes it absolutely necessary to use this precaution, to meet with success. Cuttings make the best plants and largest flowers, and the cultivator's success depends on his system of operation. Cuttings should be taken from young and healthy plants, and not exceed three joints, which must be cut with a very sharp knife, close to the joint. If the knife is dull, it will press the joint injuriously, and cause a failure; and if you leave any wood below the joint it will rot and cause a failure; therefore, be particular, and your success will be sure. When your cuttings are ready, water the soil in the pot, and when settled, put in the cutting to nearly one inch of the top, and press the soil close to the cutting; then cover them with a small bell glass or tumbler, to exclude the air from them; place them in the shade for about two weeks, give them air and water when the leaves are dry, and cover them again, or the plants will damp off.

In about six weeks you will begin to perceive them growing, and, if inclined to run up tall, pinch off the tops. Sometimes your plants will grow tall without having any roots, but pinching off the top will make them throw out root fibres. Pansies propagated this way seldom seed well, but that is of no consequence, as you can get the finest flowers by cuttings, and seed can always be purchased at seed stores.

Pansies are sometimes propagated by laying, but this is done chiefly with the common varieties, the cultivation of which is hardly worth the trouble bestowed on them, while we have such fine new varieties. The large Pansy does not seed so freely as the common kind, but the plants will have to be watched closely when you discover seed pods on them, for it is difficult to collect them. The seed pod generally hangs down, as if to guard the vessel from rain and dew at night; but the day before the seed is discharged, the capsule will be reversed by holding itself up; when you find this to be the case, you may pinch them off and keep them in a glass to dry and open, and the seed may be sown as directed above.

If at any time you find your plants surrounded with ants, take your roots up and wash them with soap suds and plant them in another situation, or your plant will be destroyed by the aphides at the root. The Pansy delights in the shade, but not under the drip of other plants or trees. T. WINTER.

Dodecatheon Meadia.

Our number being nearly full, we can only insert an extract from a letter, received from D. Lapham, of Mt. Tabor.

In the last number of the Farmer & Gardener, Mr. T. G. Lea, whose name stands high as authority in Botany, has put down the beautiful native plant, the Pride of Ohio, as *Dodecatheon Meadia.*

By comparing his description, or the plant itself, with Eaton's or Torrey's descriptions, it will be readily perceived, that it is not the *Meadia*, but that it more nearly resembles the *integrifolium.* This plant, however, differs so much from the integrifolium, that it is, no doubt, an undescribed species.

This plant differs essentially from the *Meadia*, by the leaves *not* being "repandly toothed," the umbel *not* "lax," the bracts *not* "oval."—It differs from the *integrifolium*, by the umbel being *not* "few flowered, straight," bracts *not* "linear,"—flowers being *not* "pale blue;" and its *habitat* being in rich, low grounds, and prairies, instead of "mountains."

He proposes that this variety should be called Ohioensis, or Pride of Ohio. The subject will no doubt be settled by Torrey & Gray, when it shall come up in the course of their great work. In the meantime it would be well if this should come to their notice.—Ed.

Cincinnati Green Houses.

The collections of rare and beautiful plants are already very large, and are rapidly increasing. For the benefit of our friends at a distance, we propose to put down a few notes made at recent visits.

James Howarth's houses have been, within the past year, removed to three miles from the city, on the river road;—they are quite extensive, and contain some large and valuable plants; this is one of the oldest establishments in the vicinity, and, it is understood, has met with good patronage. When there, the show of flowers was not extensive: among them were some pansies which were very beautiful, and came near to some of the fine English drawings. There was a want of neatness and care observable, which is attributed to the press of occupation attendant upon a new place.

S. S. Jackson's houses are in the same neighborhood, and with one, or perhaps two exceptions, are the most extensive.—A very beautiful show of geraniums could have been seen in one of them of more than sixty varieties, among which were some seedlings of the proprietor; one of them which has not flowered, had a leaf, which upon measuring, was found to be nearly seven inches in diameter. The collection is also very rich in roses, among which Feast's Queen of the Prairies, a multiflora, was conspicuous—the foliage itself was very rich, and the flowers very large, finely formed, and full.

Sayers & Heaver's houses have been established but a short time—on the Reading Road—the plants are grown with care, and although too small generally for show plants, are well adapted for the market, and meet with a ready sale. Some five or six very beautiful seedling pansies, may be seen in their grounds; and a delicate blush-white seedling verbena has flowered this year for the first time. They are much crowded, and propose in the coming season to make some additions to their houses.

Martin Schnetz has extensive ranges of houses near the city, on Deer Creek, and cultivates a great variety of plants for market. His collection of the Camellia, is perhaps the best among the sale houses, and in the winter gives brilliancy to the bouquets that delight the flower loving portion of mankind. He has also a good collection of Cactæ, a class of plants which is rapidly gaining favor. In his collection was a plant of the Kalmia latifolia (!) showing a profusion of white flowers, and very beautiful.

Of private green-houses, Mr. Hoffner's, Mr. Longworth's and Mr. Brigham's, may be mentioned, though the first named, it is understood, offers plants for sale.

Mr. Hoffner's is the best kept green-house in the vicinity, and contains a very choice variety of plants; among which are a fine collection of Camellia's, Cinerarias, Echiveras, &c. Within the past year, he has made many valuable additions to his collection, chiefly from the suggestion of his gardener, Mr. Ross, whose writings have occasionally appeared in this paper.

Mr. Longworth's houses are valuable for his splendid collection of Cactæ. The Speciosissima (the most beautiful) is now (10th of May) in fine flower—and the night blooming Cereus is showing its buds; in the last season more than 50 of these flowers were in bloom in the same night.—During last year, the Triangularis and the Longworthii and Sleathii, two seedlings of great merit, showed their flowers—and in this year, a new one, named the Buchanensis, produced flowers. Mr. Sleath, the gardner, tells me that he has a number of others of great merit. There are also in this collection very large and magnificent plants of the Wax-flower (Hoya) and Passiflora, well worth the regard of *amateurs*.

Mr. Brigham has recently removed his collection to the city, reducing it somewhat in size, but not in value: in it are over fifty varieties of the Camellia, mostly of young and thrifty plants, which have in the past winter shown a profusion of blooms; also a plant of the Acacia, which in leaf and flowers is exceedingly beautiful; a young and fine Pitcher plant he fears he may lose from the exposure and injury of moving.

Maj. Gano's collection is large, but I have not had an opportunity of visiting it.

Above, only *some* of the most conspicuous things are noticed. Roses, Geraniums, Heaths, Chrysanthemums, &c. abound, and the purchaser may suit himself in variety and price. The thing which would strike a critical observer as the first to be improved upon, is the tall and spindling way in which many plants are suffered to grow—this is to be expected somewhat in the sale houses, where they are crowded for room, but among amateurs, at least a few choice plants, well grown, are the most to be desired. Another thing which I shall, I hope, be pardoned in mentioning, (because it is easier to find fault than to do better,) is, that plants are suffered to remain with dead and dying leaves upon them, or they lie scattered upon the pavement. If this were remedied, the general good appearance would be much improved. C. W. E.

Cincinnati Horticultural Society.

April 13th.—At this meeting a letter was read from Mr. Lewis Vail, of Canton, Stark co., O. (See page 225.)

A bag of seed corn was presented by Hamilton Smith, Esq., of Louisville, which he describes as the most valuable variety known in this quarter, for exportation.

From Mr. Buchanan, a small bag of seed wheat, sent to him, for the Society, by Lieut. Browning, of the U. S. Navy. It was gathered by him in the Valley of Sharon, in the Holy Land. It is apparently spring wheat, and has smaller kernals than the common wheat of Ohio.

Mr. A. H. Ewing exhibited a pot of the Patrinia caryophyllus; this pretty plant was originally brought from western New York. It is hardy and fragrant,

Sayers & Heaver exhibited a very pretty seedling Verbena, raised by them.

Mr. Mottier exhibited excellent specimens of his Geneating apple, and also his Smith's Cider apple—and distributed scions of the same.

The following members were elected:

Dr. S. O. Almy, Joseph Cook, A. A. Bowen, William Huddart, of Cincinnati. Dr. Andrew Campbell, of Middletown, O.—C. P. M'Ilvaine, Bishop of Ohio, corresponding member.

The tree and flower seeds, sent from Russia, were referred to the President, to be cultivated under his direction.

A very interesting letter was received from Dr. Plummer, of Wayne co., Ind., which was published in our last number, page 228.

April 20th.—The Society met, pursuant to adjournment, Mr. Buchanan in the chair.

Mr. Sleathe exhibited an uncommonly gorgeous specimen of the Cactus Jenkinsonia, about six feet high and four feet in diameter, forming a pyramid of scarlet buds and blossoms, some three or four hundred in number. Also, the Cactus reductus media, and a seedling variety, which he has named the Cactus Buchanensis, in honor of the President of the Society.

Mr. Amos Worthington, of Storrs, presented very fine stalks of the Pie Plant.

Seeds of the Mammoth Pumpkin, and of the Dwarf Sunflower, were distributed.

The Committee on the Synonymes of Fruits reported, on examination of several specimens, their opinion, that the Putnam's Russet of Ohio, and the Roxbury Russet of Mass., (the famous apple for export,) were not identical varieties.

Resident members elected:—

James Hall, and Joseph W. Johnston, of Cincinnati; and Amos Worthington, of Storrs.

April 27th.—The Society met at 10 o'clock; Mr. Buchanan in the chair.

Dr. Smith presented, from the garden of a neighbor, branches of pear, and other fruit trees, in fruit, affected by what is called the *fire blight.* The leaves were quite black and withering. Several members stated that they had for years had pear and apple trees similarly affected, and had convinced themselves, by repeated and minute examinations, that the affection is not analogous to the ordinary blight, but is *produced by an insect.*

In this opinion, several others, who had trees affected in the same manner, concurred. It was stated, that Mr. Brigham last year cut off the branches of the trees so affected, and after they had lain some days on the ground, gathered them in a heap in one part of his orchard. This year the disease has exhibited itself in that part of the orchard, and in no other. Dr. Flagg stated, that last year he had carefully cut off and *burnt* every branch of his trees so affected, and that this year there was no appearance of the affection. (It has since made its appearance.) The subject was referred to the Committee on Entomology.

Mr. A. H. Ewing read a memorandum of the appearance of the curculio upon his trees this season. The first was discovered on the 16th of April.

A report was read, showing that there were enrolled the names of 187 resident members, 139 of whom have paid the initiation fee of $5—and 83 corresponding members.

Mr. J. G. Anthony presented to the Society seeds of the following southern shrubs, viz.—Quercus pumila—Q. virens—Nassa capita—Pinckneya pubescens—Hibiscus grandiflorus—H. scaber—H. caroliniensis—Canna flaccida—Rhexia glabella—Thalia dealbata—Aletris farinosa—Wistaria speciosa—Cuscuta americana—Callicarpa americana—Convolvulus nil—Rosa carolinensis—Yucca gloriosa—Acacia julibrisson—Maranta arundinacea.

Mr. Jacob Hoffner, jr., exhibited the following green house flowers:—Anomatheæ cruenta—Cineraria pulchella—Calceolaria smithii—C. venusta—C. meteor—C. pendula—C. victoria—Bahiana villossa—Azalia variegata. Only the Calceolaria smithii and C. victoria have ever before been in bloom in the West.

Mr. Jackson, Mr. Ewing and Mr. Winter, each presented splendid bouquets of flowers.

M. C. W. Elliott presented for distribution roots of the Bazilla or Mexican Vine.

The President read the following communication from Mr. R. P. Brooks:—

dd *Farmer Office, Cincinnati, April 27th,* 1844.

R. Buchanan, Esq. President Hort. Society:

Sir—I received, a few days ago, from the Hon. H. L. Ellsworth, of Washington City, a small lot of choice seeds. I have presented a few of some of the varieties to two or three friends in the country, who, I was satisfied, would make the most of them. The balance I would respectfully present to your society, feeling assured that I could not make a better disposition of them. I have observed, in most of the agricultural papers with which we exchange, an acknowledgment of similar favors, from the Patent Office, and I think that much good may be expected to result therefrom, if Mr. Ellsworth's views are properly carried out by those into whose hands the seeds may fall.

Very respectfully, R. P. BROOKS.

The packages contained the following seeds:

1. Kloss' White Blue Stem (winter) Wheat.
2. White Flint Winter Wheat. The premium wheat of New York—yield well—used for extra flour.
3. Etrurian Winter Wheat. Brought to the U. States by Com. Stewart. From 5 1-2 acres, sown in the autumn of 1842, was gathered 132 bushels, weighing 63 lbs.
4. Multicole Rye, imported from France, said to be different from common rye—to be sown in June—grows very rapid—straw 8 to 10 feet high—head 10 to 12 inches long. It is said that it can be pastured during summer, fall and winter, and then yield a good crop the following year. Kernel small—weight 58 lbs. to the bushel.
5. English Chevalier Barley.
6. Calcutta Flax Seed. Much larger than American, and said to yield 15 to 20 per cent. more oil.
7. Egyptian Corn. Very prolific, each kernel producing from 1000 to 2000 kernels—good for stock, and particularly recommended for poultry—kernels slightly resemble broom corn, but is three or four times as large.
8. An excellent variety of White Corn.
9. Prolific White Bush Bean. Excellent for table or stock. Has yielded 40 bushels per acre in Mass.
10. Improved Carolina Water Melon.
11. Early Bush Squash.—12. Marrow Squash.
13. Union Head Lettuce.—14. Malta Cabbage do.

The Commitee on a room for the Society, was authorized to procure one without further delay.

May 4th.—The meeting this day, was held at the Amateur Musical Hall, on Pearl street.

The first May Duke Cherries of the season were exhibited by Mr. Flamen Ball.

Branches of fruit trees were shown by Mr. Buchanan and others, exhibiting the ravages of a disease, called Fire Blight. Some discussion ensued, on the subject of insects injurious to trees; and Mr. G. Graham suggested that whale oil soap, (1*lb.* to 7 gallons of water,) would be a remedy for most kinds of these insects.

The following letter was read, from Dr. Mosher, a very intelligent, practical horticulturist:

To the President of the Cincinnati Hort. Society:

Sir—As the disease usually denominated the Fire Blight, which has of late proved so destructive to the Pear trees, has been a subject of much speculation, and anxious solicitude among the cultivators of this valuable fruit, and as no definite cause, or specific remedy, that I am aware of, has yet been made public, I take the liberty of presenting to this Society the result of my own investigations, made during a series of four or five years in succession.

Ten years ago I had about a dozen of the choicest varieties of Pear, then in the country, which had been reared with the greatest care, until they came into bearing, about which time they were attacked by this disease, which first made its appearance at the extremity of a single branch, when in full leaf, growing vigorously, and the fruit about one-fourth grown. The young twigs of the present year's growth are generally first attacked, after which the disease extends down the branch to the older wood, and sometimes even to the large trunks—the bark of which is seen turning black in patches, and sinking below the healthy surface, as if gangrenous. Generally, before the trunk and larger branches suffer materially, the disease will have extended from the extremities of the most thrifty shoots of one smaller branch to those of the neighboring branches, until the whole top appears as if blackened and dried up by the effects of fire. Even this does not always kill the trunk, and if the branches are all cut off, the vigorous roots will often force out a new head to the tree, perhaps during the same season, to share a similar fate.

In this appalling state of things, I began my investigations—commencing first by the help of a good lens with the blackened leaves and limbs—extending my observations down to the trunk—dissecting off carefully the leaves, the bark, and the wood, without discovering any satisfactory cause. My practice was to amputate the dead branches, which I had no sooner done than others were attacked in a similar manner, and shared the same fate, until several of my trees were reduced to a mere stump. Not satisfied with this defeat, and judging from the previous healthy condition and thrifty appearance of the trees, that the cause was to be sought still among the branches, I went still more earnestly to work. Not confining my researches, as heretofore, to the diseased and deadened branches, I examined some healthy branches adjacent to those that were diseased. Here I soon found the enemy. On pulling off the leaves carefully, by the aid of my lens, were discovered from five to twenty very minute brown colored Aphides, snugly secreted in the axilla of every leaf on several small branches: not one leaf was exempt. These little insects, which I could barely discern with the naked eye, but which were magnified to the size of a quarter of an inch in length by the lens, appeared of different sizes and ages, and seemed all very happily situated: most of them were busily engaged with their proboscis inserted through the tender cuticle of this part of the petiole of the leaf, feasting upon the vital juices of the tree. The leaves, being thus deprived of the necessary sap for nourishment and elaboration, soon perished and turned black by the heat of the sun, while all that part of the branch and trunk below, dependent upon the elaborated sap of the deadened leaves above, shrunk, turned black, and dried up. The fruit became shrivelled, and shared the same fate.

The Quince and sometimes the Apple tree is attacked in the same way, and by a similar insect, although they appear to be of a different species—that on the Quince, particularly, is of a different color and different form; but they all belong to that numerous family of insects, the Aphides; and I believe almost every tree is infested with a peculiar species. These insects, have all one common habit of living, by sucking the juices of plants. Scarce any part of a plant is exempt from their depredations—the root, the bark, and the leaves, all suffer more or less. Apple trees in the nursery, and especially those raised in rich loose bottom land, are often seriously injured in the roots by a particular species of Aphis, giving them a knotted and enlarged appearance, very detrimental to their future health. In trees thus affected, a white cottony appearance will be always seen about the roots. This can be prevented by planting nurseries in a compact sandy soil, and working the ground frequently about the roots.

The Aphides, which produce the blight in Pear trees, live in colonies, and travel from branch to branch, always leaving one before it is so far deprived of its juices as not to afford them an abundant supply of food, and generally before their ravages become apparent by the blackened and dried state of the leaves; hence they have so long eluded detection. I have never been able to find a solitary insect on a branch, the leaves of which had turned black; and in searching for them on a tree, I have often looked over nearly every branch, before they were discovered, but at last found them perhaps on a single branch, but then always in considerable numbers, and always in the axilla of every leaf. This I have left, and watched the effect, which has invariably been, the appearance of the disease in that branch in the course of a few days.

Remedy.—The only remedy is amputation. But this is a branch of horticultural surgery requiring the utmost skill and sagacity. Cutting off the already deadened branches is not sufficient, and in fact of very little avail; but the operator must go to work, not merely with knife in hand, but with a good lens, and search branch after branch till he finds the colony or colonies busily engaged at their work of destruction. Then with a bold stroke of the knife or saw, no matter how great the sacrifice, remove every branch infested, and cast it into the fire. Close watching may hereafter save the tree; for as it is the most succulent and thrifty varieties that are attacked, the vigorous roots will soon reinstate the denuded branches of their loss.

With much respect, S. MOSHER.

No such Aphides have been found upon the trees subject to, and now dying with the Fire Blight in this vicinity. See an article in this number, p. 254.—Ed.

Floral Calendar of Native Plants, for June---at Cincinnati.

BY T. G. LEA.

Days of rain, clouds, and high winds, have characterised the first three weeks of the last month. The quantity of rain that has fallen in that time is uncommon, measuring, as I am informed, a little over five inches. The mean temperature of the same period is 66½°, which is only a degree and a half more than was observed in the corresponding period of the preceding month. As far as my observations have extended, vegetation has regularly advanced, without check or injury; and now appears in vigor and freshness, as pleasing to the eye for its beauty, as it is full of promise to bring forth an abundance of fruits.

The three spring months have passed away, and the flowers that belonged to their season are now faded; most of them unseen or unnoticed, but still perfectly and surely performing their wonderful functions;—the reproductive seed has been formed, the young shoot has put forth from the parent stalk, and the embryo bud is wrapped with protecting folds. The summer comes, and brings forth *its* appropriate growth; each month, or week, or day, presents some interesting plant, some fresh form, from the bosom of nature—evidences of the "varied God."

The species now popularly described, grow within a few miles of the city, and flower during the month of June.

Iris versicolor. *Blue Flag.*—This belongs to a genus easily distinguished by its six-parted corolla, three of the segments of which are larger and reflected, and the other three erect; the three stigmas resembling petals, arched over the stamens. In this species, the stem is about two feet high, erect or flexuose, bearing three to six flowers. Leaves sword shaped, about as long as the stem, sheathing at base. The three outer segments of the flowers are blue, variegated with yellow at the base; the three inner ones smaller, erect, of a paler color. The stamens are concealed under the petal-like stigmas. We have two varieties of this species. It grows in swamps and wet meadows; not frequent. Dr. Bigelow describes the root as being cathartic and emetic.

Lysimachia quadrifolia. *Loose-strife.*—Stem one to two feet high, simple, with whorls of four leaves, which are nearly sessile. The number of leaves in a whorl sometimes varies into three or six, or more rarely they are scattered. The peduncles are in the axils of the leaves, long and slender, but rather shorter than the leaves, each bearing but one flower. The corolla is yellow, deeply five-parted; stamens five, unequal. Frequent in open woods and thickets.

Lysimachia ciliata.—Stem two to three feet high, with axillary branches. Leaves opposite, four to six inches long, and about half as wide as long; acuminate at the apex; somewhat heart-shaped at base; on rather long ciliate petioles. The peduncles are in pairs in the axils of the leaves; one-flowered, the flowers drooping. The corolla is yellow, deeply five-parted. Stamens five, nearly equal. Frequent in low, moist places. Grows on the border of a pond beyond the Brighton House, near the race ground.

Cypripedium spectabile. *Showy Lady's Slipper.*—Stem fifteen to twenty inches high, very hairy, leafy. Leaves large, alternate, elliptic, sessile, and sheathing the stem; strongly nerved and hirsute. The flower is terminal, mostly but one, sometimes there are two, rarely as many as three or four; it consists of four segments of a white color, two of which are broad, oval, and obtuse, the other two narrower—all shorter than the lip. The lip is large, (about an inch and a half long,) inflated or saccate, with an aperture on its upper side, at the end of which is the column, terminating in a petal-like apendage; color pure white, tinged with red. This very beautiful flower is rare here. It grows in boggy places, and wet meadows. With proper care, it thrives as a garden plant.

Convalyria multiflora, *Solomon's Seal.*—Stem one to five feet high, simple, curved, and leaning, smooth. Leaves alternate, sessile, and slighly clasping, smooth, mostly oval. The peduncles are in the axils of the leaves, one to two inches long, bearing three to six flowers on pedicels, half an inch or more long. The flowers are greenish white, six-cleft, cylindrical, the segments a little spreading. Grows in rich woodlands and thickets; frequent. The young shoots of this plant are said to be a good substitute for asparagus.

Lilium Canadense. *Wild Lily.*—Root bulbous, white. Stem two to four feet high, smooth and shining. Leaves lanceolate, in verticils two to four inches apart, each of six to nine, or more, leaves. Flowers, three to seven, all nodding, on long, curving peduncles; they are about two inches long, deeply six-parted, the segments recurved, of a yellowish red, marked with dark colored spots inside. In woodlands and meadows; not common. This handsome plant thrives in the garden, and requires but little attention.

Celastrus scandens. *Wax Work—Climbing Staff-tree.*—Stem ten to fifteen feet long, twining, woody, smooth. Leaves on short petioles, oval, abruptly acuminate, smooth, serrate. Flowers in racemes terminating the branches. The petals are small; color green-

ish yellow. The capsule or fruit, when ripe, is of a pale orange color. This is an ornamental climber, and its clusters of orange colored fruit are very showy. It deserves a place in gardens.

Dioscorea villosa. *Wild Yam.*—Root woody, tortuous. A climbing, slender vine, six to twelve feet long, seldom branched, twining on shrubs. The leaves are mostly alternate, sometimes several near together; on longish petioles, cordate at base, acuminate, entire, smooth above, strongly nerved. The staminate and pistillate flowers are on separate plants in the axils of the leaves; the former in small branched clusters or panicles, the latter in a simple raceme. The perianth is small, pale green, six-parted. The fruit or capsule is nearly an inch long, smooth and shining, three-angled, the angles broad and compressed. In thickets and woodlands: not uncommon. An infusion of the root is said to be a valuable and prompt remedy in bilious colic. A tincture of the root has been recommended as an expectorant.

Spiræa Opulifolia. *Nine Bark.*—Stem three to six feet high, branching, the old bark loose and detaching itself. Leaves on short petioles, about as broad as long, roundish, three-lobed, smooth, unequally serrate. The flowers which are numerous and small, are crowded in umbel-like clusters. The corolla consists of five petals, which are white, slightly tinged with red. The stamens are numerous, inserted with the petals into the calyx tube. A handsome shrub, growing in wet meadows or thickets; not common.

Spiræa Lobata. *Pride of the Prairie.*—Root creeping. Stem herbaceous, two to four feet high. The lower leaves are a foot or more long, unequally pinnate, the lateral leaflets three-parted or lobed, the terminal leaflet very large, about seven-lobed; the upper stem leaves are short, three-lobed. The flowers are small, of a deep rose color, very numerous, in a large, dense, compound panicle. This fine species, the handsomest of a beautiful genus, is very rare in our vicinity; I have found but a few stems of it, three or four years since, at the foot of a springy bank above Cumminsville, near Mr. Hill's house. It thrives and spreads in the garden.

Spiræa Aruncus. *Goat's Beard.*—This species of Spiræa has a herbaceous stem, two to three feet high. The leaves are very large, twice or thrice pinnately divided, the leaflets thin, ovate-oblong, acuminate, sometimes cordate at base, deeply and irregularly serrate. The staminate and pistillate flowers are on different plants. The panicle is compound, large, one to one and a half feet long, and more than half as broad, bearing the flowers on its slender branchlets. The flowers are numerous, small, white; the staminate ones with many long stamens. In thickets; not frequent. This is a handsome plant.

Baptisia australis. *Spiked Indigo-weed.*—Stems two feet or more high, smooth. The leaves are in threes, (ternate,) on very short petioles; the leaflets an inch to two inches long, broader near the summit, and tapering to the base. There are two stipules at the base of the petioles. The racemes bearing the flowers are six to twelve inches long. The corolla is blue, about three-fourths of an inch long, papilionaceous, the upper petal (banner) rather shorter than the wings, with its sides reflexed. The pod or legume is large. This handsome plant is rare here; I have seen it growing under the river bank about half a mile below Millcreek. It succeeds well in the garden.

Tilia americana. *Linden—Bass-wood.*—A large tree, attaining the height of sixty to eighty feet. The leaves are large, somewhat rounded, heart-shaped at base, often with one side longer than the other, abruptly pointed at summit, serrate. The flowers are in a small cluster or cyme, terminating a long, pendulous peduncle, attached for about half its length to a light colored floral leaf or bract. The petals are five, yellowish white, each with an accessary scale within; the stamens are numerous, and shorter than the petals. In woodlands; not uncommon. This is an ornamental shade-tree, and preferable to several kinds that are planted on the streets. There are several young trees near the corner of Fourth and Vine streets. The flowers are fragrant.

Penstemon pubescens. *Beard Tongue.*—Stem one to two feet high, four-angled, mostly simple. Leaves opposite, distant, embracing the stem, serrate or nearly entire, varying much in size and outline, mostly ovate, broad at base, and gradually narrowing in an acuminate point. Panicle sometimes small and simple, or large and compound. The corolla is pale purple, or reddish white, nearly an inch long, two-lipped, the tube narrow below, inflated above; one of the five stamens is longer than the rest, and bearded on its upper half. In thickets and open woodlands; not uncommon.

Aplectrum hyemale. *Adam and Eve—Putty Root.*—Root coarsely fibrous, bearing two or more large, fleshy tubers. The naked stem or scape is twelve to fifteen inches high, smooth, purplish, invested at its base with two or three sheaths. A single leaf arises from the root, of an oval shape, acute at each end, of a dry texture, plaited, striate with many white nerves. The flowers are in a terminal raceme, of a yellowish purple color; the lip nearly as long as the petals, and dilated towards the end; they are at first somewhat erect, afterwards pendulous. The leaf makes its appearance after the time of flowering, and continues green through the winter. In woodlands; not common.

Apocynum cannabinum. *Indian Hemp.*—Stem three to four feet high, smooth, purplish, branching. Leaves mostly elliptic, on short petioles, three to four inches long, and about half as wide as long. The flowers are borne

in umbel-like clusters, (cymes.) The corolla is bell-shaped, five-cleft, erect, the tube about as long as the calyx, of a greenish white color, often tinged with red. The bark has strong fibres, like hemp. In thickets and open woods. There is a patch of it on the western acclivity of the first hill below the mouth of Millcreek.

Clematis viorna. *Leather Flower.*—Stem six to eight feet long, slender, climbing by tendrils. Leaves pinnately compound, the lateral petioles long, terminating in three leaflets, which are mostly entire, sometimes two or three lobed; the main petiole ends in a three-cleft tendril. Peduncles axillary, four to eight inches or more long, with a pair of two to three lobed or entire leaves near the middle. Flowers large, nodding, purplish; the petals are four, thick, leathery, with the apex recurved. The fruit is crowned with long, plumose tails. Two additional peduncles often accompany the main one from the bosom of the two floral leaves, each terminated by a flower. In thickets and borders of woodlands; not frequent. This is a handsome vine, and grows well in the garden.

Cornus circinata.—A branching shrub, four to eight feet high. The leaves are opposite, on petioles about an inch long, large, oval, ending abruptly in an acuminate point, roughish above, with a soft, whitish pubescence beneath. Flowers small, in a rather large, open cyme. Corrolla of four white petals. The fruit is about the size of a pea, white, and contains a hard nut. The flowers have a pleasant smell. Very rare; in thickets and on banks of streams.

Ceanothus americanus. *New Jersey Tea.*—Root large, crooked, red. Stem two to three feet high, shrubby, and branched. Leaves alternate, ovate, serrate, three-nerved, nearly smooth above, softly pubescent beneath. Peduncles axillary, nearly naked, three to six inches long. Flowers numerous, small, white; in a thyrsus terminating the long peduncles, with two small leaves at its base. The corolla consists of five saccate, arched petals, on long claws. In open woodlands. Not frequent. This handsome little shrub, is ornamental in gardens. Dr. Darlington says, "The leaves of this plant were used, by the Whigs, during the American Revolution, as a substitute for *tea*.

Euonymus atropurpureus. *Burning Bush—Spindle Tree.*—A shrub five to eight feet high, with smooth branches. Leaves on short petioles, oval, acuminate, finely serrate. Peduncles axillary, divided into spreading branches, bearing small, dark purple flowers. The corolla is of four petals. The fruit purple or bright red, deeply lobed. The seeds have a red fleshy covering. In thickets and woodlands. Not uncommon. Cultivated in gardens.

Note.—In the description of Dodecatheon Meadia, in the last number, the margin of the leaves is said to be entire. It should be, margin entire, sometimes more or less repandly toothed.

Work for June.

Flower Garden.—After heavy showers of rain, and when the ground has dried a little, it should be stirred round all tender annuals; if any of the varieties are destroyed, sow them over again. Sow a few of the finest annuals in a by-corner, such as the Schezanthus, Nemophylla, Lemonathus, &c., to be potted in the fall, to flower in the green-house in winter, or early in the spring. Propagate Chrysanthemums, by cuttings, if not done before. Plants grown from cuttings, produce the most perfect flower. Plant Dahlias, immediately; look under the leaves for the red spider; if there are any, wet the leaves, then powder them all over with the flour of sulphur. If the red spider gets hold at this season, when the weather is dry, you cannot get rid of them. Take up bulbs of all kinds, that are flowered, and their leaves turning brown. Dry them in a shady place; do not cut their leaves off until they are dried; fill the places occupied by the bulbs, with Verbenas, Heliotropes, Vincas, Portulaceas, Lantanies, &c. Mow grass often, especially in rainy weather; it will keep green longer when the dry weather sets in. Sweep your walks every Saturday, whether they want it or not; it keeps weeds down. Tie the flowering stems of almost all plants to stakes, proportionate to their growth; it is very slovenly to let plants dangle about, that should be growing upright. Order is every thing in a flower garden, and if a garden is not in order this month, it never will be.

Green House.—All green-house plants should be out of doors the first of this month; much of the health and beauty of plants in winter, depend on where they are kept in summer. The generality of gardeners about the Queen City, huddle their plants in any corner. Now, five minutes' thinking, might show any man, that a summer *habitation* is as necessary to green-house plants as a winter one. Therefore, every green-house should have a place, partially shaded, and convenient to water, for green-house plants in summer. Plants in general, will stand the summer sun, provided, the roots are shaded, and kept cool and moist; and the only way to keep them so, is to place, or plunge the pots into some non-conducting media, such as old tan, sand, saw-dust, ashes, &c. I consider the latter the best for plants, because it allows a free drainage, (fish-worms don't like crawling in it,) can easily be kept clean, and the same ashes will do for years. Several green-house plants will be in a fit state to propagate the beginning of the month, such as the Chinese Azaleas, Rhododendrons, Camellias, (single,) Pelargonums, Cactii, &c. Gloxinias, Hedychiums, Geonarias, require water freely. Water always in the evening, say, after 5 o'clock. Attention to watering is the principal study at this season. Well or spring water should be exposed to the atmosphere 12 hours. D. B.